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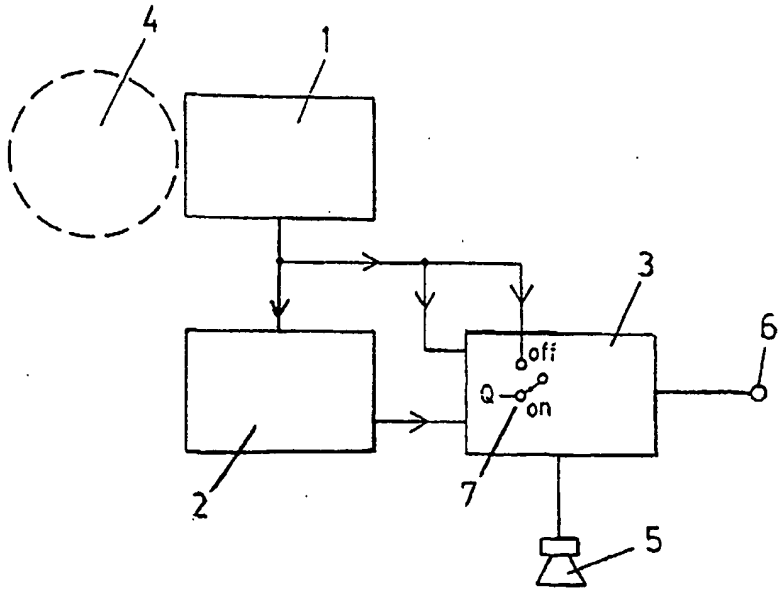
(54) Title: DEVICE FOR WARNING OF THE ABSENCE OF ACTIVITY IN HOUSEHOLDS OCCUPIED BY A SINGLE PERSON



(57) Abstract

Warning device for warning of the absence of activity in households with a single occupier whose main purpose is to draw attention if after a preset period of time has elaspsed no movement has occurred within its protection zone, characterised in that it comprises a motion detector (1) operatively associated with a timer (2) and an alarm switch (3), said timer being set to a time delay proportional to a normal sleeping time, said timer actuating an interior alarm (5) if said motion detector (1) has not sensed any movement in its protection zone (4) once said time delay has elapsed, said interior alarm (5) actuating an exterior alarm (6) via telephone or sound alarm if it has not been switched off within a short predetermined period of time, said exterior alarm (6) ringing on until somebody enters said protected zone (4), and wherein said timer is automatically reset each time the motion detector (1) senses a movement.

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DEVICE FOR WARNING OF THE ABSENCE OF ACTIVITY IN HOUSEHOLDS OCCUPIED BY A SINGLE PERSON

Field of the invention

The present invention relates, as hereunder stated, to a warning device for warning of the absence of activity in a household with a single occupier, the purpose of which device is to draw attention of people if no movement has taken place in its protection zone since a predetermined period of time.

Background of the invention

Up to now, there has been a problem with people living alone. This problem can arise when due to an unforeseeable indisposition which impedes movement or to some other similar reason the lonely person cannot call for help.

Cases are known in which, as said above, a person which was living alone has been suffering for a long time, and has even died, without being able to call somebody or has suddenly collapsed and a long period of time elapsed before she or he was discovered. Such cases represent serious social and sanitary problems.

Summary of the invention

The object of the invention is to provide a warning device for warning of the absence of activity in a household with a single occupier which can overcome the above-mentionned drawbacks. If the present warning device has not sensed any movement within a presettable period of time which can be considered as normal as for example evening rest or sleeping time, it will activate an alarm inside the house and, should this interior alarm not having been switched off after a

short period of time this interior alarm will be desactivated and an exterior alarm will then be activated.

In order to achieve this object, the warning device of the present invention comprises a motion detector associated with a timer and an alarm switch in order to perform the previous operations. Once installed, the device only requires a programmation of the normal time for an absence of activity or movement and, in extended period of absence such as holidays or the like, to be disconnected. Under any other circumstance, a detection of some activity by the motion detector incorporated therein always resets the device according to the preset time for an absence of activity.

Its simple configuration, easy installation and simple use are, among others, the main advantages which make the present warning device a very useful tool in solving the problem encountered in households with a single occupier.

Description of the drawings

In order to complement the present description and to get a better understanding of the features of the present invention, a sheet of drawings is included with the present application as an integral part of it, in which the only figure is a block diagram showing the structure of the device for warning of the absence of activity in households with a single occupier according to the invention.

Preferred embodiment of the invention

As can be seen from the single figure, the warning device for warning of the absence of activity in a household with a single occupier according to the invention comprises a motion detector 1 which can be an infrared, ultrasonic sensor or the like, operatively connected with a timer 2 and an alarm switch 3 in such a way that if when the timer 2 has been set to a time delay proportional to a normal sleeping time the motion detector 1 has not sensed any movement within a protected zone 4 of the households after that time has elapsed, which zone is preferably the passageway to the bathroom, the device actuates an interior alarm 5; if after a short period of time such as for example one minute this interior alarm 5 has not been switched off an exterior alarm 6 will be actuated such as for example via a telephone

or sound alarm.

Obviously if no movement exists within the protected zone 4 during the preset period of time, the timer 2 outputs a signal to switch on the alarm switch 3 but if any movement occurs within said zone 4 before the end of the time delay the timer 2 will be automatically reset and this happens every time a movement is detected. If for example the timer 2 has been set with a time delay of eight hours and the detector 1 senses a movement after four hours, as for example the movement of the occupier who goes to the bathroom, at that point the timer is automatically reset so that eight more hours must again elapse before the alarm 5 can be activated.

The exterior alarm 6 will remain operating until somebody enters the house and specifically enters the protected zone 4.

In case of a longer absence, much longer than the preset time delay, the user will have to switch off an ON/OFF switch 7 provided in the alarm switch 3 and connected via Q to the timer 2. In this way only the interior alarm 5 will operate without actuating the exterior alarm 6. This function insures that when the user comes back home he does not forget to switch back the ON/OFF switch 7 to the ON position.

From the former description it can be seen that the device warning of the absence of activity takes care of all circumstances which can arise in the presence or absence of people, due to a full level of protection being reached and that through its use unique advantages are derived as it only requires a minimum attention from the user.

It is considered not necessary to further explain the above description as those versed in the technical field will understand the scope of the invention as well as all the advantages provided thereby.

Many changes, modifications and variations in the materials, shape, size and arrangement of the parts of the present invention can be made without departing from the scope and spirit of the invention.

All terms used in the present specification shall be considered in their general and by no way limitating sense.

CLAIMS

1. Warning device for warning of the absence of activity in households with a single occupier whose main purpose is to draw attention if after a preset period of time has elapsed no movement has occurred within its protection zone, characterised in that it comprises a motion detector (1) operatively associated with a timer (2) and an alarm switch (3), said timer being set to a time delay proportionnal to a normal sleeping time, said timer actuating an interior alarm (5) if said motion detector (1) has not sensed any movement in its protection zone (4) once said time delay has elapsed, said interior alarm (5) actuating an exterior alarm (6) via telephone or sound alarm if it has not been switched off within a short predetermined period of time, said exterior alarm (6) ringing on until somebody enters said protected zone (4), and wherein said timer is automatically reset each time the motion detector (1) senses a movement.

2. Warning device for warning of the absence of activity in households with a single occupier according to claim 1, characterised in that the alarm switch (3) includes an ON/OFF switch (7) for disconnection (OFF position) during an extended period of absence, and in that when said ON/OFF switch is in the OFF position the interior alarm (5) operates periodically in accordance with the preset time delay of the timer (2) so that when the user comes back home he is warned to switch back said switch (7) to the ON position.

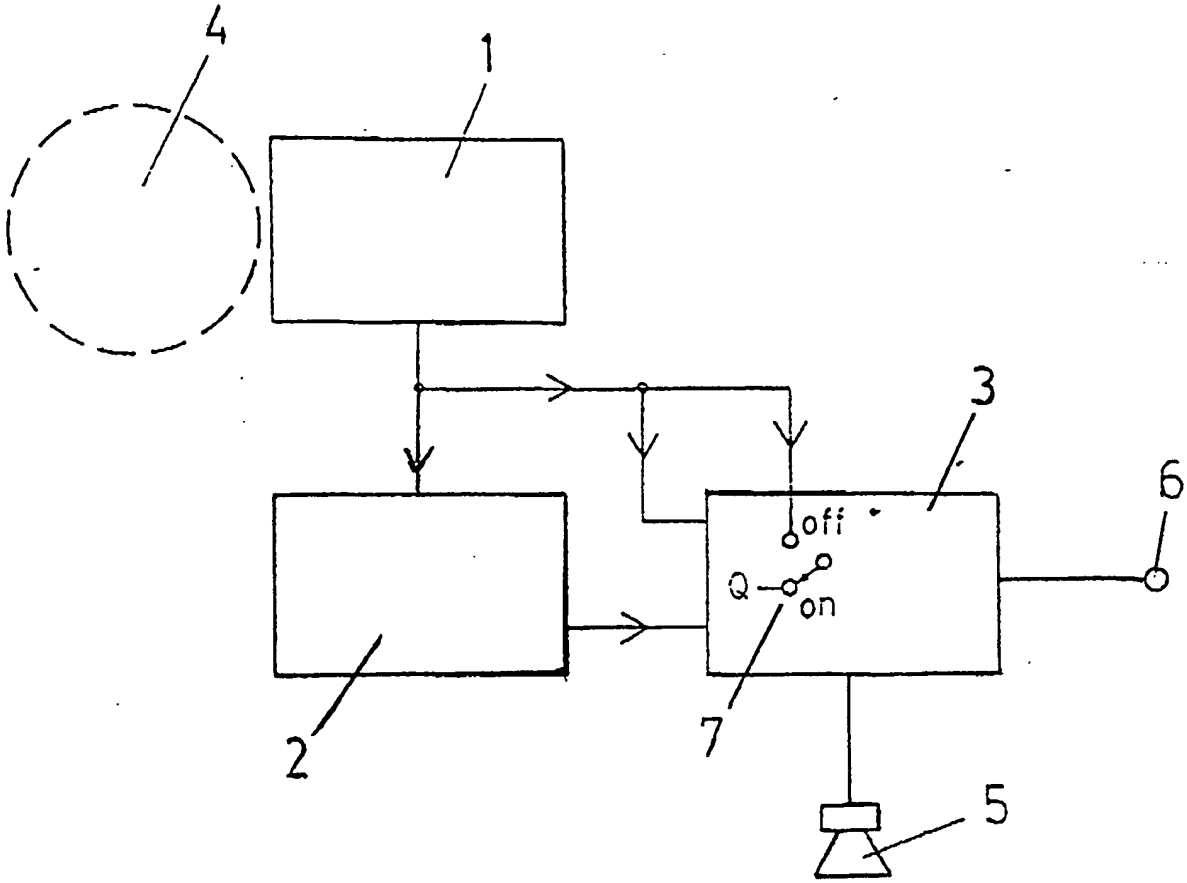

FIG.1

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 94/00626

A. CLASSIFICATION OF SUBJECT MATTER
IPC 5 G08B21/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 5 G08B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB,A,2 179 186 (LIFEGUARD SYSTEMS LIMITED) 25 February 1987 see page 1, line 78 - page 3, line 64; figures 1-3 ---	1,2
X	ELECTRONIQUE RADIO PLANS no. 519 , 1991 , PARIS pages 50 - 56 XP000200420 P. GUEULLE 'UN DETECTEUR D'INACTIVITE A INFRAROUGE PASSIF' see the whole document -----	1

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